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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/662,799	09/12/2003	Mukund Raghavachari	YOR920030346	9501
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MICHAEL J. BUCHENHORNER 8540 S.W. 83 STREET MIAMI, FL 33143			EXAMINER LUDWIG, MATTHEW J	
			ART UNIT 2178	PAPER NUMBER
			NOTIFICATION DATE 11/16/2007	DELIVERY MODE ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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## Office Action Summary

Application No.

10/662,799

Applicant(s)

RAGHAVACHARI ET AL.

Examiner

Matthew J. Ludwig

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 24 August 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 30-51 and 59-65 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 31, 34, 35, 38-44, 49-51, 59-62 and 65 is/are rejected.
- 7) ☒ Claim(s) 32, 36, 37, 45-48, 63 and 64 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. This action is in response to the Request for Reconsideration filed 8/24/2007.
2. Claims 30-51 and 59-65 are pending in the application. Applicant cancelled claims 1-29 and 52-58.
3. Claims 1-3, 10, 11, 28, and 29, rejected under 35 U.S.C. 102(b) as being anticipated by Thompson, et al., have been withdrawn pursuant to applicant's amendment. Claims 4-9 and 12-27 rejected under 35 U.S.C. 103(a) as being unpatentable over Thompson in view of Thompson, Henry S. and further in view of a subset of test results from Microsoft on complex type elements (Schema Tests) have been withdrawn pursuant to applicant's amendment.

### *Claim Rejections - 35 USC § 103*

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. **Claims 30-51 and 59-65 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thompson, Henry S., et al., "A Standards-based XML Schema Implementation Comparison Framework," HCRC Language Technology Group, World Wide Web Consortium, paper presented at Extreme Markup Languages 2001, August 14-17, 2001, last downloaded by the Examiner January 31, 2006 from:**  
**<http://www.mulberrytech.com/Extreme/Proceedings/xslfo->**

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**pdf/2001/Thompson01/EML2001Thompson01.pdf, downloaded cover page and pages 1-7**

**[hereinafter “Thompson”],**

**in view of Thompson, Henry S., “W3C XML Schema Test Collection,” W3C, January 16, 2002, last downloaded by the Examiner on January 31, 2006 from:**

**<http://www.w3.org/2001/05/xmlschema-test-collection.html>, downloaded pages 1-9,**

**[hereinafter “Schema Tests”],**

**and further in view of a subset of test results from Microsoft on complex type elements, last downloaded by the Examiner on February 1, 2006 from:**

**<http://www.w3.org/XML/2001/05/xmlschema-test-collection/result-ms-complexType.htm>,**

**downloaded pages 1-178, which are linked to the “W3C XML Schema Test Collection.”**

**[The Microsoft complex type test results referred to hereinafter as “Microsoft Complex Type Test Results.”].**

**In reference to independent claim 30, Thompson teaches:**

On page 2, the figure illustrates a source schema and a target schema description as well as a method for comparing elements of those distinct schemas against document elements (compare to ‘*receiving source schema and target schema; receiving the source document, wherein the source document comprises an ordered tree structure with labeled elements*’). See figure 1, page 2.

It is further noted that the claim compares schema element types to determine whether they match. Also, the reference discloses the comparison of a valid XML, HTML, schema or XSLT document elements, taught as structures, to a second such document structure to determine whether they match, thereby validating or invalidating the second document (compare

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to *‘identifying corresponding element types in the source and target schemas for grouping the corresponding element types into element type pairs...’*). See Thompson, pages 1-7.

Thompson teaches the validation of a second schema by comparison to a first valid schema. Thompson does not teach the specific tests for validation.

Schema Tests teaches specific tests for validation of a second schema compared against a first valid schema. Microsoft Complex Type Test Results teach comparisons under hundreds of variations and the results of the comparison testing (compare to *‘confirming compliance of the source document it is determined that all element types pairs correspond to root elements of the source document’*).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the references because both references involve the same art, comparison testing of XML schemas for validation purposes. The suggestion to combine the two references is explicit in Thompson wherein it cites the reader to the schema test collection homepage, which links directly to test results by Sun, NIST, and Microsoft (including the Microsoft Complex Type Test Results). See, Thompson, page 7, bottom of the first partial paragraph, citing to “<http://www.w3.org/2001/05/xmlschema-test-collection.html>.”

**In reference to dependent claim 31**, Thompson teaches:

(See, Schema Tests, and also see, Microsoft Complex Type Test Results “ctH019” at page 125 of 178 showing a comparison test result with a not valid second schema in the Xerxes test result. It would have been obvious to one of ordinary skill in the art at the time of the invention that a schema that was invalid as to part of the schema would have been invalid as to

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the entire schema. A partially invalid schema would be invalid, however, the subtree of the source document would be compared after inaccuracies were found in the source document.

**In reference to dependent claim 33**, Thompson teaches:

Figure 2 illustrates relationships between the element type pair such that portions of the source document in compliance with respect to the element type in the source schema are valid with respect to the corresponding element type in the target schema. See Thompson, figure 2.

**In reference to dependent claim 34**, Thompson teaches:

See, Schema Tests, and also see, Microsoft Complex Type Test Results "ctH019" at page 125 of 178 showing a comparison test result with a not valid second schema in the Xerxes test result and a valid second schema in the Msv Crimson and XSV tests.

**In reference to dependent claim 35**, Thompson teaches:

Figure 2 illustrates relationships between the element type pair such that portions of the source document in compliance with respect to the element type in the source schema are valid with respect to the corresponding element type in the target schema. See Thompson, figure 2. See, Schema Tests, and also see, Microsoft Complex Type Test Results "ctH019" at page 125 of 178 showing a comparison test result with a not valid second schema in the Xerxes test result. It would have been obvious to one of ordinary skill in the art at the time of the invention that a schema that was invalid as to part of the schema would have been invalid as to the entire schema.

**In reference to dependent claim 38**, Thompson teaches:

The XML schema method disclosed in the reference provides a suggestion of XML schema as presently claimed. See pages 1-7.

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**In reference to dependent claim 39,** Thompson teaches:

*The method of claim 1 wherein said document is an XML document.*

See, Schema Tests, and also see, Microsoft Complex Type Test Results teaching comparing XML documents.

**In reference to dependent claim 40,** Thompson teaches:

The XML schema method disclosed in the reference provides a suggestion of XML schema as presently claimed. See pages 1-7.

**In reference to dependent claim 41,** Thompson teaches:

A comparison between two documents to determine modification was well known by one of ordinary skill in the art at the time of the invention. It would have been obvious to one of ordinary skill in the art at the time of the invention to run a comparison test on a schema prior to validating a schema if one thought the schema may have been modified subsequent to validation.

**In reference to dependent claim 42,** Thompson teaches:

A comparison between two documents to determine modification was well known by one of ordinary skill in the art at the time of the invention. Further, it would have been obvious to one of ordinary skill in the art at the time of the invention to test only the modified portions of the test schema because the remainder of the schema would be known to be valid by virtue of the prior comparison. It would have been obvious to one of ordinary skill in the art at the time of the invention to run a comparison test on a schema prior to validating a schema if one thought the schema may have been modified subsequent to validation.

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**In reference to dependent claim 43,** Thompson teaches:

It would have been obvious to one of ordinary skill in the art at the time of the invention to ignore deleted elements because a deleted element obviously has no influence on an otherwise valid schema.

**In reference to dependent claim 44,** Thompson teaches:

It would have been obvious to one of ordinary skill in the art at the time of the invention to allow modified specifications to be permitted within the information computed and, assuming the modified specifications were valid, to conclude that the entire document was valid, provided the un-modified portions were already determined to be valid.

**In reference to dependent claims 49-51,** Thompson teaches:

See, Schema Tests, and also see, Microsoft Complex Type Test Results “ctH019” at page 125 of 178 showing a comparison test result with a not valid second schema in the Xerxes test result. It would have been obvious to one of ordinary skill in the art at the time of the invention that a schema that was invalid as to part of the schema would have been invalid as to the entire schema. A partially invalid schema is obviously invalid.

**In reference to claims 59-60, and 65,** the claims recite similar language to the rejected claims of 30 and 31. Therefore, the claims are rejected under similar rationale.

**In reference to dependent claim 61 and 62,** Thompson teaches:

Figure 4 illustrates one pair of difference pointers can be seen in the left-most pane: they both point to the element with D e1.1.1.10 in the two input documents and the element with this ID can be seen in the two right-hand panes, with, as indicated, different content. See Thompson, figure 4.



***Allowable Subject Matter***

6. Claims 32, 36, 37, 45-48, 63, and 64, are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Response to Arguments***

7. Applicant's arguments with respect to claims 30-51 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Hellman et al., PG Pub. 2004/0216030 1/15/2002

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew J. Ludwig whose telephone number is 571-272-4127. The examiner can normally be reached on 9:00am-6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Hong can be reached on 571-272-4124. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ML

  
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SUPERVISORY PATENT EXAMINER